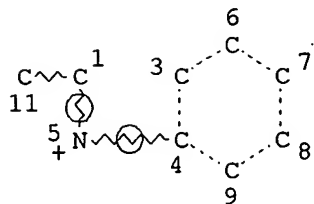


10/058903

Huff, S.
10/088866

(FILE 'REGISTRY' ENTERED AT 12:15:30 ON 14 JAN 2005)

L15 SCR 2022 < > = Two (2) " S"
L17 STR



NODE ATTRIBUTES:

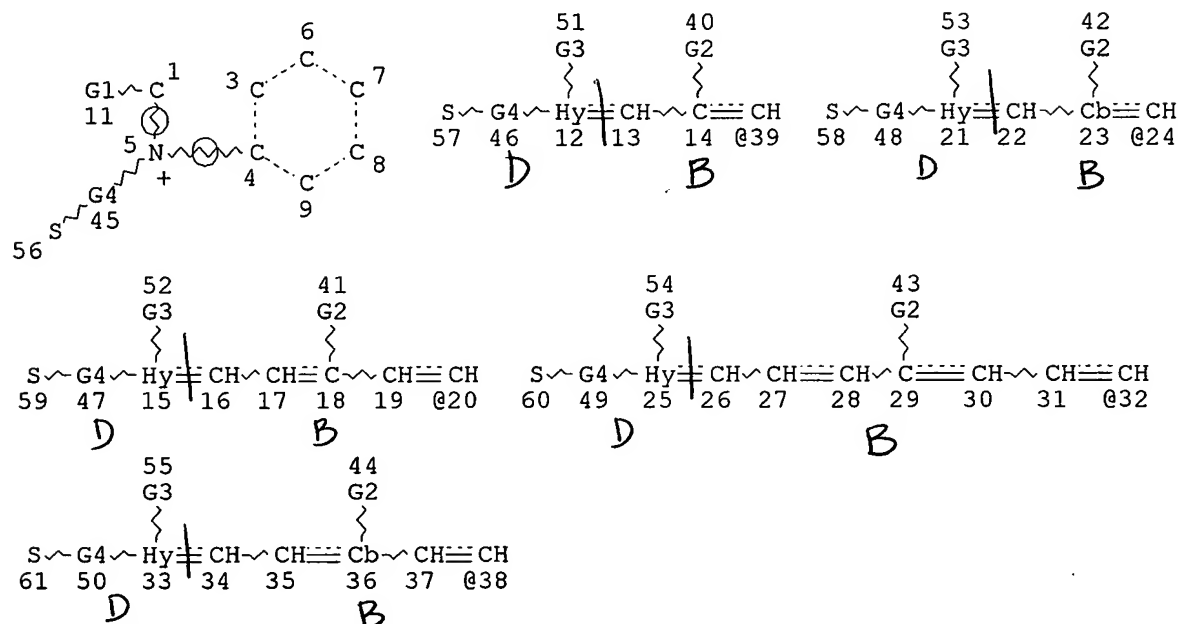
CHARGE IS *+ AT 5
CONNECT IS X2 RC AT 6
CONNECT IS X2 RC AT 8
CONNECT IS X2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L19 13263 SEA FILE=REGISTRY SSS FUL L15 AND L17
L61 STR



VAR G1=39/20/24/32/38

VAR G2=H/F/CL/BR/I

VAR G3=C/N/O/S/H

REP G4=(1-4) C

NODE ATTRIBUTES:

CHARGE IS *+ AT 5
CONNECT IS X2 RC AT 6

10/058903

CONNECT IS X2 RC AT 8
CONNECT IS X2 RC AT 9
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY AT 12
GGCAT IS PCY AT 15
GGCAT IS PCY AT 21
GGCAT IS PCY AT 25
GGCAT IS PCY AT 33
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 N AT 12
ECOUNT IS M1 N AT 15
ECOUNT IS M1 N AT 21
ECOUNT IS M1 N AT 25
ECOUNT IS M1 N AT 33

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 59

STEREO ATTRIBUTES: NONE

L62 1343 SEA FILE=REGISTRY SUB=L19 SSS FUL L61
L67 718 SEA FILE=REGISTRY ABB=ON PLU=ON L62 AND 1/NC

← Limit to one (1)
compd.

FILE 'CAPLUS' ENTERED AT 12:16:37 ON 14 JAN 2005
L68 162 S L67
L69 14 S L68(L) (?CONJUGAT? OR ?LINK?)

E1 THROUGH E45 ASSIGNED

L69 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:775925 CAPLUS
DOCUMENT NUMBER: 141:421859
TITLE: Developing a peptide-based near-infrared molecular
probe for protease sensing
AUTHOR(S): Pham, Wellington; Choi, Yongdoo; Weissleder, Ralph;
Tung, Ching-Hsuan
CORPORATE SOURCE: Center for Molecular Imaging Research, Massachusetts
General Hospital, Harvard Medical School, Charlestown,
MA, 02129, USA
SOURCE: Bioconjugate Chemistry (2004), 15(6), 1403-1407
CODEN: BCCHE; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Recently near-IR (NIR) mol. probes have become important reporter mols.
for a number of types of in vivo biomedical imaging. A peptide-based NIR
fluorescence probe consisting of a NIR fluorescence emitter (Cy5.5), a NIR
fluorescence absorber (NIRQ820), and a protease selective peptide sequence
was designed to sense protease activity. Using a MMP-7 model, we showed
that NIRQ820 efficiently absorbs the emission energy of Cy5.5 resulting in
a low initial signal. Upon reacting with its target, MMP-7, the
fluorescence signal of the designed probe was increased by 7-fold with a
Kcat/Km of 100 000 M⁻¹ s⁻¹. The described synthetic strategy should have
wide application for other NIR probe preps.

IT 795315-56-9DP, conjugates with resin
795315-57-0DP, conjugates with resin

Searcher : Shears 571-272-2528

10/058903

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(peptide-based near-IR mol. probe for protease sensing)

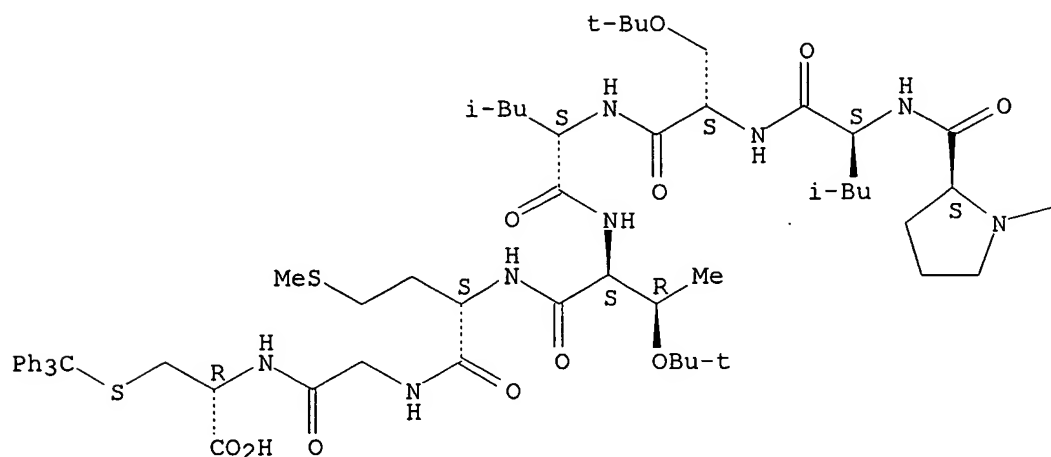
RN 795315-56-9 CAPLUS

CN L-Cysteine, N-[[2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-butyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfo-butyl)-3H-indolium-5-yl]carbonyl]glycyl-L-valyl-L-prolyl-L-leucyl-O-(1,1-dimethylethyl)-L-seryl-L-leucyl-O-(1,1-dimethylethyl)-L-threonyl-L-methionylglycyl-S-(triphenylmethyl)-, inner salt (9CI) (CA INDEX NAME)

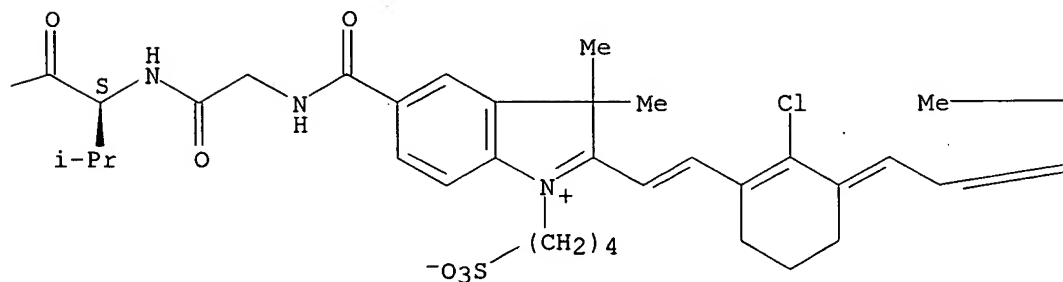
Absolute stereochemistry.

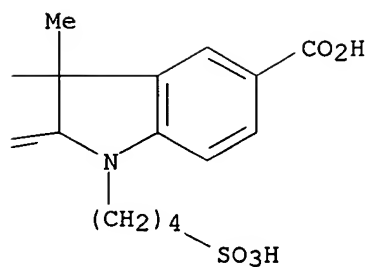
Double bond geometry unknown.

PAGE 1-A



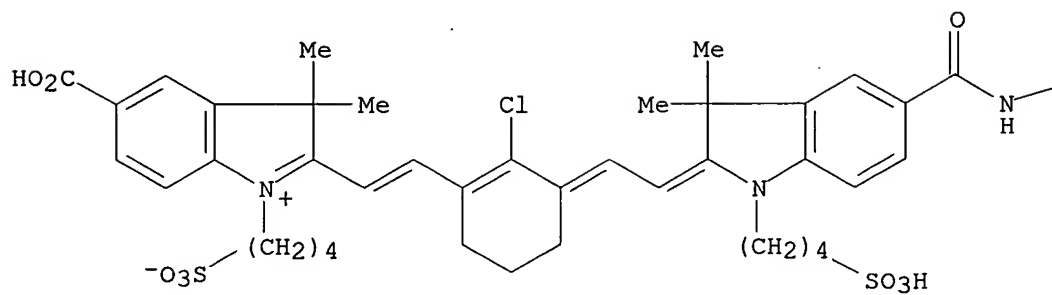
PAGE 1-B

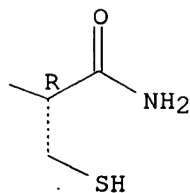
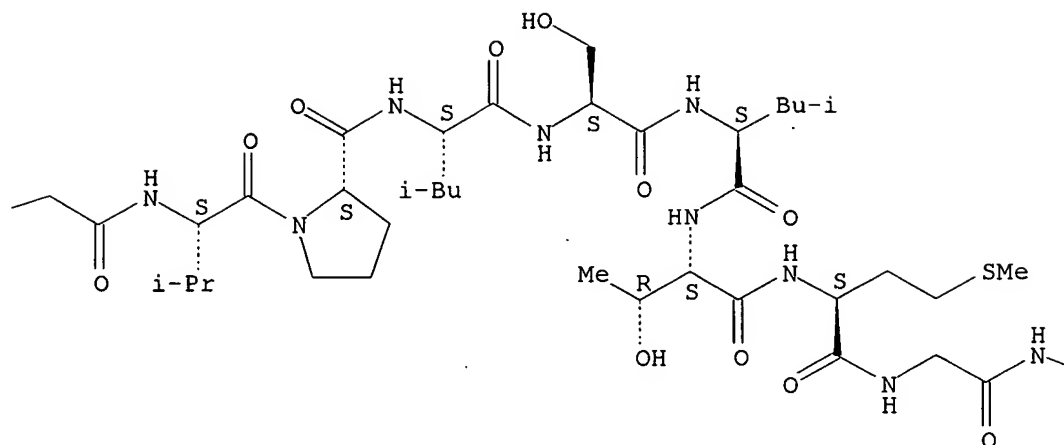




RN 795315-57-0 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
 Double bond geometry unknown.





REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:679369 CAPLUS

DOCUMENT NUMBER: 139:304048

TITLE: High efficiency synthesis of a bioconjugatable near-infrared fluorochrome

AUTHOR(S): Pham, Wellington; Lai, Wen-Fu; Weissleder, Ralph; Tung, Ching-Hsuan

CORPORATE SOURCE: Center for Molecular Imaging Research, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, 02129, USA

SOURCE: Bioconjugate Chemistry (2003), 14(5), 1048-1051
 CODEN: BCCHE; ISSN: 1043-1802
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Near-IR (NIR) fluorochromes have become important reporter mols. for many biomedical applications, including FACS sorting, confocal microscopy, and more recently in vivo imaging. While the structures of several stable 800 nm fluorochromes have been published, their synthesis is often complex and there are difficulties in rapidly purifying these compds. in large quantities. Here we report on the synthesis of NIR820, ex/em = 790/820, with excellent physicochem. properties. Importantly, NIR820 is conveniently synthesized in a three-step reaction and can be purified by flash column chromatog. rather than by HPLC. NIR820 is chemical stable and can be directly coupled to peptides during the solid-phase synthesis. In addition, NIR820 is also suitable for conjugation to proteins and other affinity mols. in aqueous buffer.

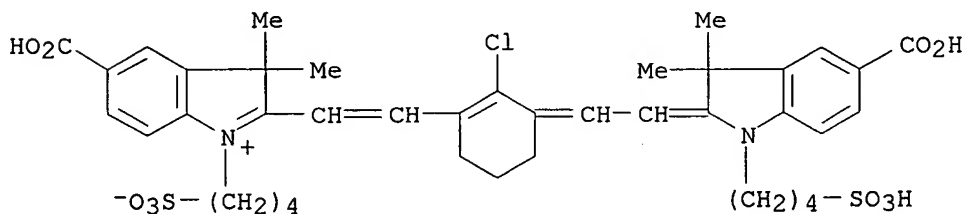
IT 612531-93-8P

RL: ARU (Analytical role, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)

(high efficiency synthesis of **bioconjugatable** near-IR fluorochrome)

RN 612531-93-8 CAPLUS

CN 3H-Indolium, 5-carboxy-2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



IT 612531-94-9DP, reaction products with Tf protein

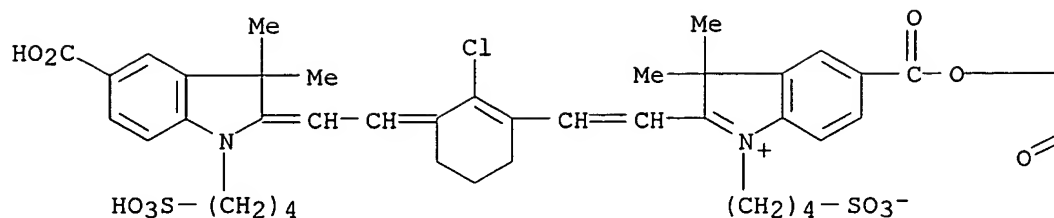
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(high efficiency synthesis of **bioconjugatable** near-IR fluorochrome)

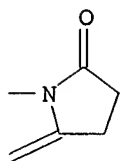
RN 612531-94-9 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-5-[[2,5-dioxo-1-pyrrolidinyl]oxy]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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PAGE 1-B



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:678390 CAPLUS
 DOCUMENT NUMBER: 139:193970
 TITLE: Folate targeted enhanced tumor and folate receptor positive tissue optical imaging technology
 INVENTOR(S): Jallad, Karim N.; Kennedy, Michael D.; Low, Philip S.; Ben-Amotz, Dor
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 20 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003162234	A1	20030828	US 2003-360001	20030206
US 2004136910	A1	20040715	US 2003-742291	20031219
PRIORITY APPLN. INFO.:			US 2002-355417P	P 20020207
			US 2003-360001	A2 20030206

AB A method of and apparatus for differentiating tumors from healthy cells in tissue are disclosed. The method includes the steps of providing a marker-folate conjugate, placing the marker-folate conjugate in contact with the tissue and viewing the tissue. A folate-fluorescein conjugate was used to image M109 tumors in mice and arthritis in rat paws.

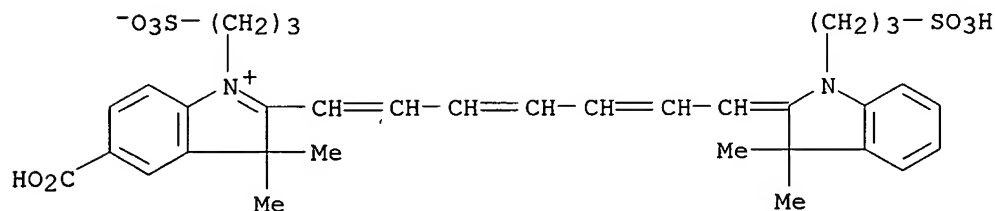
IT **583037-93-8D, conjugates** with folate
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
 DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study);
 USES (Uses)

10/058903

(folate-targeted enhanced tumor and folate receptor-pos. tissue optical imaging technol.)

RN 583037-93-8 CAPLUS

CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L69 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:247216 CAPLUS

DOCUMENT NUMBER: 134:263164

TITLE: Antibody dye conjugates for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries

INVENTOR(S): Schirner, Michael; Licha, Kai; Dinkelborg, Ludger

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023005	A1	20010405	WO 2000-EP8121	20000819
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
DE 19947559	A1	20010419	DE 1999-19947559	19990924
CA 2385593	AA	20010405	CA 2000-2385593	20000819
BR 2000014192	A	20020521	BR 2000-14192	20000819
EP 1214099	A1	20020619	EP 2000-954640	20000819
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
JP 2003510294	T2	20030318	JP 2001-526214	20000819
EE 200200152	A	20030415	EE 2002-152	20000819
NZ 517944	A	20040625	NZ 2000-517944	20000819
BG 106528	A	20021229	BG 2002-106528	20020319

Searcher : Shears 571-272-2528

10/058903

NO 2002001441	A	20020515	NO 2002-1441	20020322
ZA 2002003225	A	20030723	ZA 2002-3225	20020423
PRIORITY APPLN. INFO.:			DE 1999-19947559	A 19990924
			WO 2000-EP8121	W 20000819

AB The invention relates to antibody dye conjugates which are suited for binding to structures of newly formed vessels and to the their use for interoperatively detecting pathol. angiogenesis. Fluorescent dyes are defined that are coupled to antibodies. Thus bis(1,1'-di(4-sulfobutyl)indocarbocyanine-5-carboxylic acid N-hydroxysuccinimide ester) was synthesized and coupled with an antibody to EDB fibronectin. The conjugate was injected into F9-teratocarcinoma-carrying mice; fluorescence in the tumor-surrounding tissues was detected.

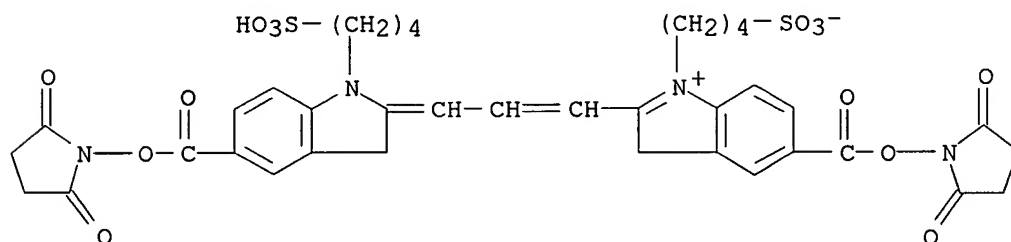
IT **331661-84-8DP, antibody conjugate**

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antibody dye **conjugates** for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

RN 331661-84-8 CAPLUS

CN 3H-Indolium, 5-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-2-[3-[5-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



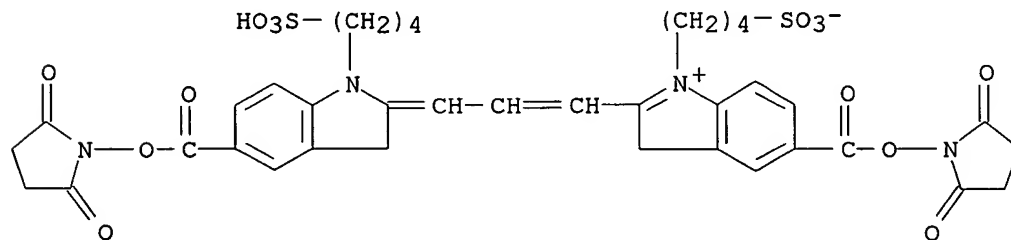
IT **331661-84-8P 331661-85-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

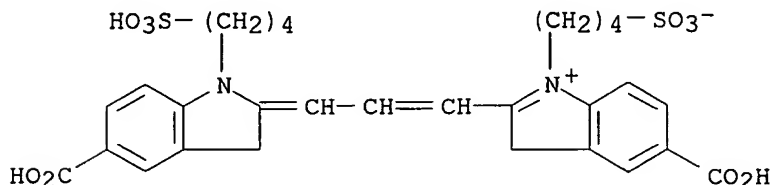
(antibody dye **conjugates** for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

RN 331661-84-8 CAPLUS

CN 3H-Indolium, 5-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-2-[3-[5-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 331661-85-9 CAPLUS
 CN 3H-Indolium, 5-carboxy-2-[3-[5-carboxy-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:38760 CAPLUS

DOCUMENT NUMBER: 134:202772

TITLE: Synthesis, characterization, and biological properties of cyanine-labeled somatostatin analogues as receptor-targeted fluorescent probes

AUTHOR(S): Licha, Kai; Hessenius, Carsten; Becker, Andreas; Henklein, Peter; Bauer, Michael; Wisniewski, Stefan; Wiedenmann, Bertram; Semmler, Wolfhard

CORPORATE SOURCE: Institut fuer Diagnostikforschung GmbH an der Freien Universitaet Berlin, Berlin, 14050, Germany

SOURCE: Bioconjugate Chemistry (2001), 12(1), 44-50
 CODEN: BCCHE; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We present the synthesis and characterization of the somatostatin receptor-specific peptide H2N-(D-Phe)-cyclo[Cys-Phe-(D-Trp)-Lys-Thr-Cys]-Thr-OH, which is labeled with a carboxylated indodicarbo- and an indotricarbocyanine dye at the N-terminal amino group. The preparation was performed by automated solid-phase synthesis, with subsequent attachment of the cyanine dye and cleavage of the entire conjugate from the resin. The compds. display high molar absorbance and fluorescence quantum yields typical for cyanine dyes and are thus suitable receptor-targeted contrast agents for mol. optical imaging. The ability of these agents to target the somatostatin receptor was demonstrated by flow cytometry in vitro, in which the indotricarbocyanine conjugate led to elevated cell-associated fluorescence on somatostatin receptor-expressing tumor cells. In contrast, the corresponding linearized derivative of the sequence H2N-(D-Phe)-Met-Phe-(D-Trp)-Lys-Thr-Met-Thr-OH produced only minimal cell fluorescence, hence confirming the specificity of the cyclic somatostatin analog. Intracellular localization could be visualized by near-IR (NIR) fluorescence microscopy. In conclusion, receptor-specific peptides are promising tools for designing site-directed optical contrast agents for use in mol. optical imaging.

IT 328395-93-3P 328395-94-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

10/058903

(control dye-peptide **conjugate**; synthesis, characterization,
and biol. properties of cyanine-labeled somatostatin analogs as
receptor-targeted fluorescent probes)

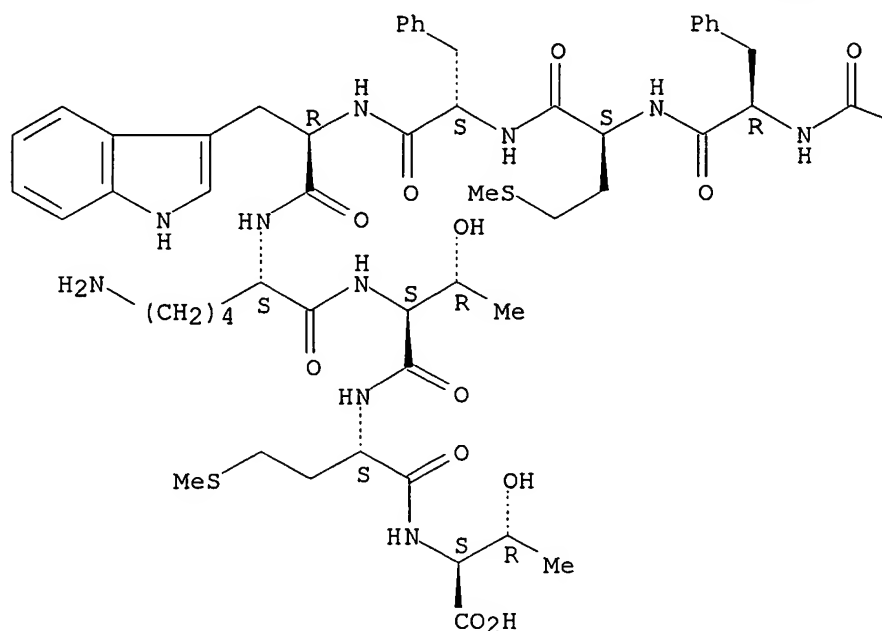
RN 328395-93-3 CAPLUS

CN L-Threonine, N-[[2-[5-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-D-phenylalanyl-L-methionyl-L-phenylalanyl-D-tryptophyl-L-lysyl-L-threonyl-L-methionyl-, inner salt (9CI), (CA INDEX NAME)

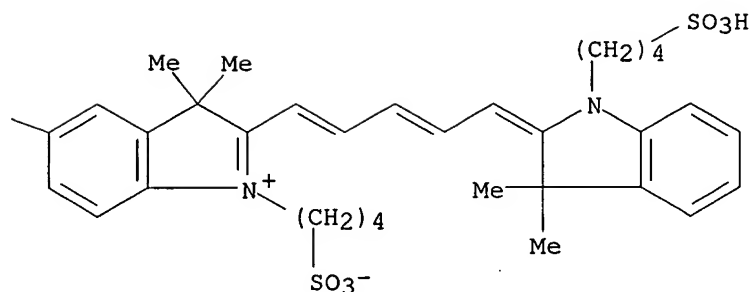
Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



RN 328395-94-4 CAPLUS

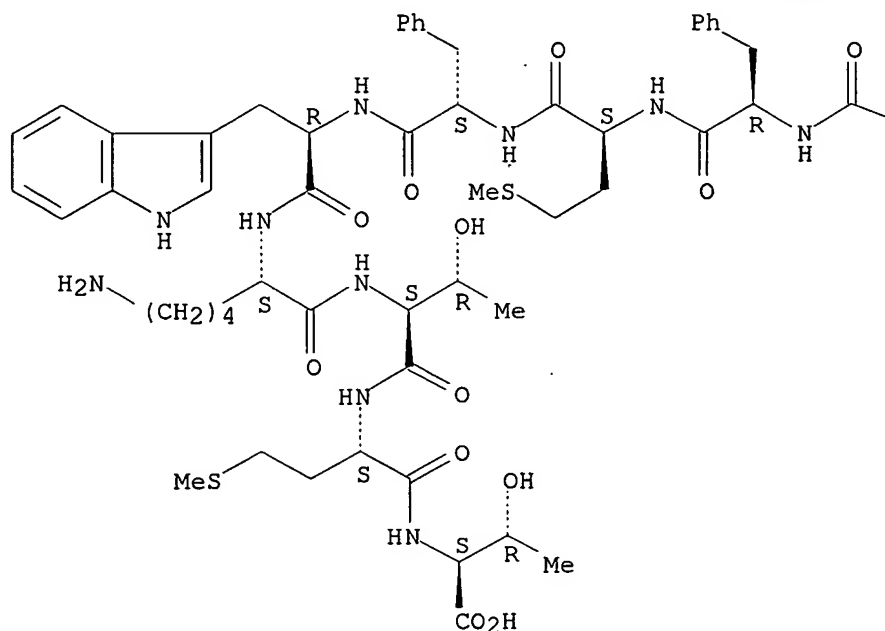
CN L-Threonine, N-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-

2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-D-phenylalanyl-L-methionyl-L-phenylalanyl-D-tryptophyl-L-lysyl-L-threonyl-L-methionyl-, inner salt (9CI) (CA INDEX NAME)

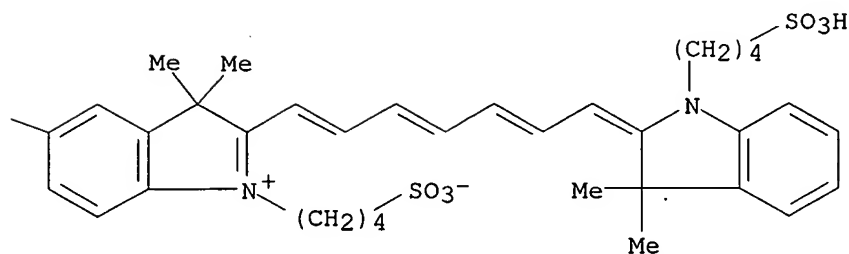
Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:10685 CAPLUS

DOCUMENT NUMBER: 134:102214

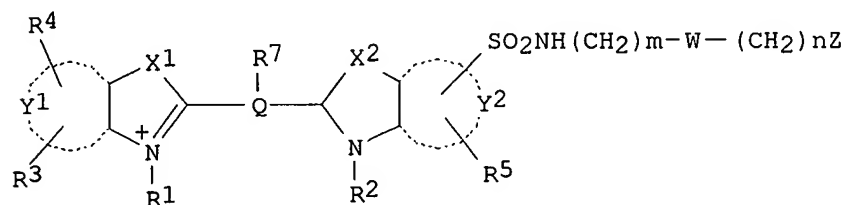
TITLE: New fluorescent cyanine labels containing a sulfonamido linker arm

INVENTOR(S): Caputo, Giuseppe; Della, Ciana Leopoldo

10/058903

PATENT ASSIGNEE(S): Innosense S.r.L., Italy; Visen Medical, Inc.
 SOURCE: Eur. Pat. Appl., 94 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1065250	A1	20010103	EP 1999-112696	19990702
EP 1065250	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 284433	E	20041215	AT 1999-112696	19990702
EP 1491591	A1	20041229	EP 2004-23147	19990702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
AU 776841	B2	20040923	AU 2000-42581	20000621
CA 2312099	AA	20010102	CA 2000-2312099	20000622
US 6448008	B1	20020910	US 2000-609035	20000630
BR 2000005843	A	20020102	BR 2000-5843	20000703
PRIORITY APPLN. INFO.:			EP 1999-112696	A 19990702
OTHER SOURCE(S):	MARPAT 134:102214			
GI				



I

AB Water-soluble fluorescent cyanine dyes, capable of being excited by inexpensive light-emitting diodes or diode lasers and of conjugating with a wide variety of biomols., have the structure I [Q = conjugated connecting group; R1, R2 = H, C1-4 (sulfo)alkyl; R3-R5 = H, SO3H, C1-4 sulfoalkyl, SO2NH(CH2)mW(CH2)nZ; W = direct link, SO2NH, O, CO2, CONH; X1, X2 = O, S, CMe2, C:CH2; Y1, Y2 = benzo, naphtho; Z is or contains a functional group capable of bonding to biomols.; m, n = 0-12; m + n = 1-12] or its salt. Thus, K 2,3,3-trimethyl-3H-indole-5-sulfonate was converted with PCl5 and POCl3 to the 5-sulfonyl chloride, which was condensed with glycine tert-Bu ester, and the product was alkylated with 1,4-butane sultone to give 5-[[[(carboxymethyl)amino]sulfonyl]-2,3,3-trimethyl-1-(4-sulfobutyl)-3H-indolium inner salt (II). 2,3,3-Trimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium inner salt was treated first with PhNHCH:NPh and then with II to give a I [Q = CH:CHCH:, R1 = R2 = (CH2)4SO3H; R3 = 5-SO3H, R4 = R5 = H, W = direct link, X1 = X2 = CMe2, Y1 = Y2 = benzo, Z = CO2H, m = 0, n = 1].

IT 316829-76-2P 316829-77-3P 316829-78-4P
 316829-79-5P 316829-80-8P 316829-81-9P
 316829-82-0P 316829-83-1P 316829-84-2P

Searcher : Shears 571-272-2528

10/058903

316829-85-3P 316829-86-4P 316829-87-5P

316829-88-6P 316829-89-7P 316829-90-0P

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316829-94-4P 316829-95-5P 316829-96-6P

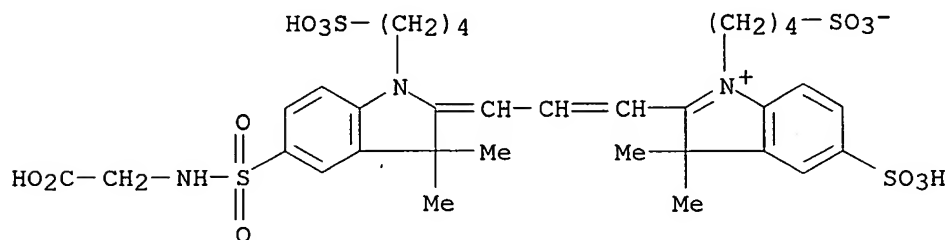
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)

(preparation of fluorescent cyanine dye labels containing a sulfonamido linker arm)

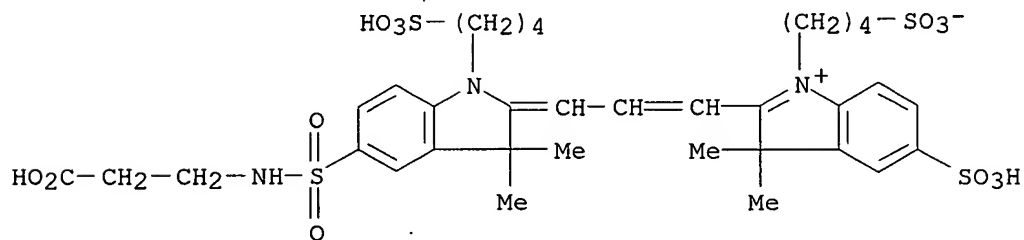
RN 316829-76-2 CAPLUS

CN 3H-Indolium, 2-[3-[5-[[(carboxymethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 316829-77-3 CAPLUS

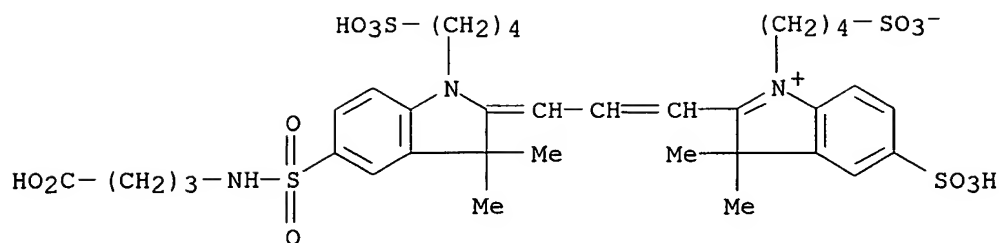
CN 3H-Indolium, 2-[3-[5-[[(2-carboxyethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 316829-78-4 CAPLUS

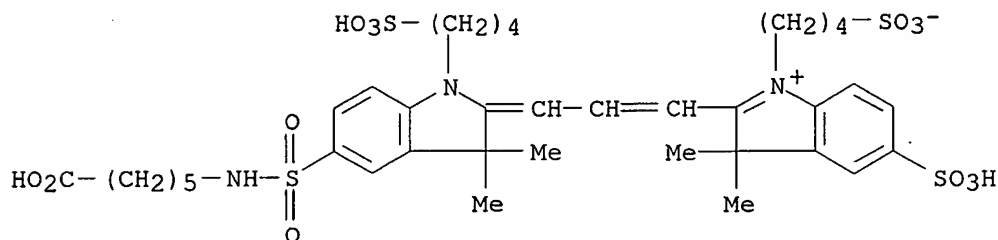
CN 3H-Indolium, 2-[3-[5-[[(3-carboxypropyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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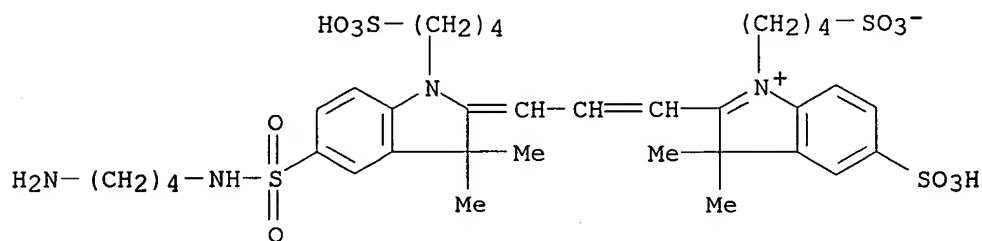
RN 316829-79-5 CAPLUS

CN 3H-Indolium, 2-[3-[5-[(5-carboxypentyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



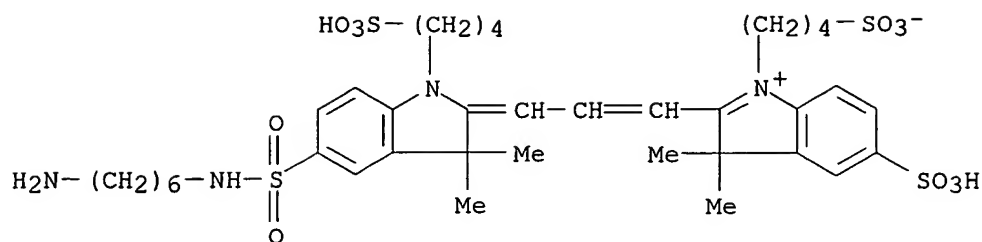
RN 316829-80-8 CAPLUS

CN 3H-Indolium, 2-[3-[5-[(4-aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

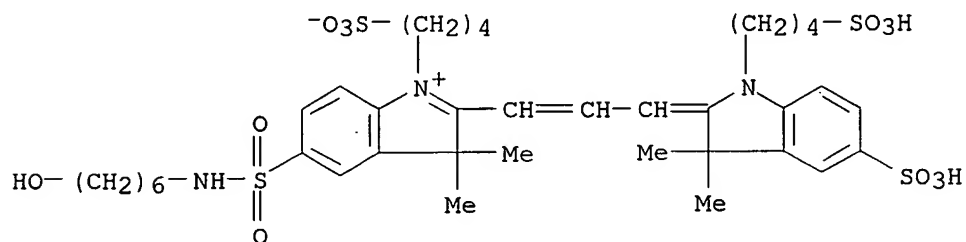


RN 316829-81-9 CAPLUS

CN 3H-Indolium, 2-[3-[5-[(6-aminohexyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

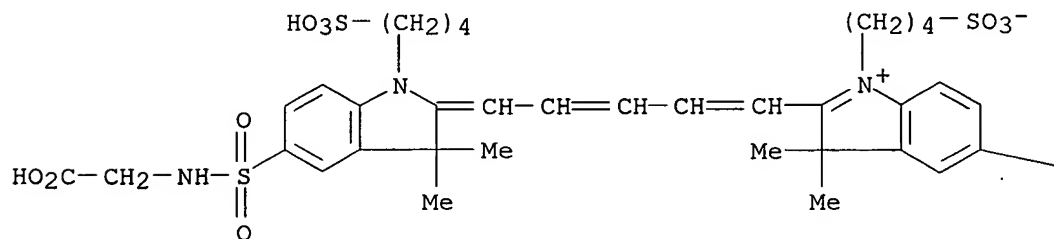


RN 316829-82-0 CAPLUS
 CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-5-[[(6-hydroxyhexyl) amino]sulfonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 316829-83-1 CAPLUS
 CN 3H-Indolium, 2-[5-[5-[[(carboxymethyl) amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

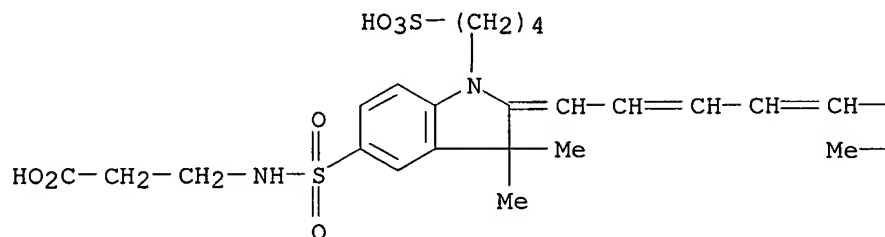
PAGE 1-A



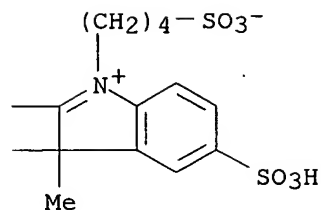
—SO₃H

RN 316829-84-2 CAPLUS
 CN 3H-Indolium, 2-[5-[5-[[(2-carboxyethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-butyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-butyl)-, inner salt (9CI) (CA INDEX NAME)

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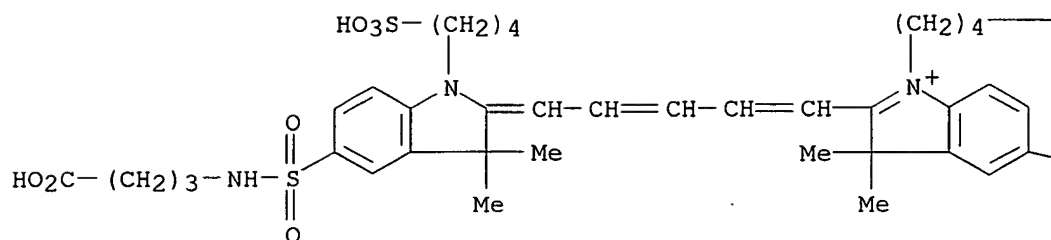


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RN 316829-85-3 CAPLUS
 CN 3H-Indolium, 2-[5-[5-[[(3-carboxypropyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-butyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-butyl)-, inner salt (9CI) (CA INDEX NAME)

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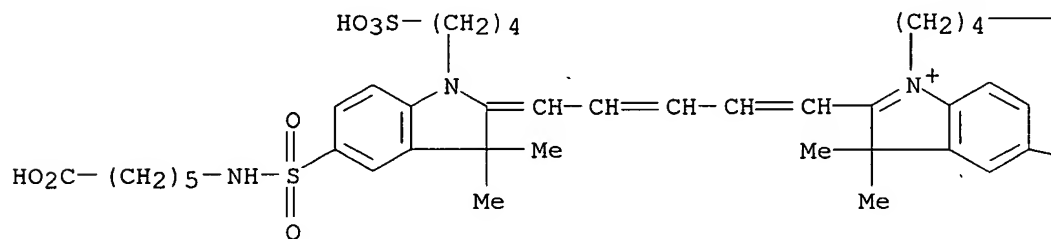


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— SO₃⁻SO₃H

RN 316829-86-4 CAPLUS
 CN 3H-Indolium, 2-[5-[5-[[(5-carboxypentyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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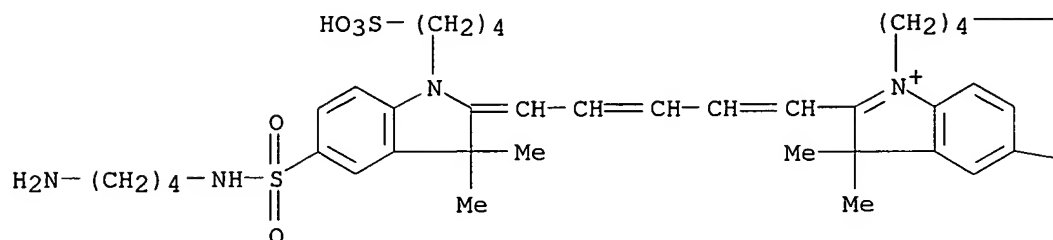
— SO₃⁻SO₃H

RN 316829-87-5 CAPLUS
 CN 3H-Indolium, 2-[5-[5-[[(4-aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-

10/058903

dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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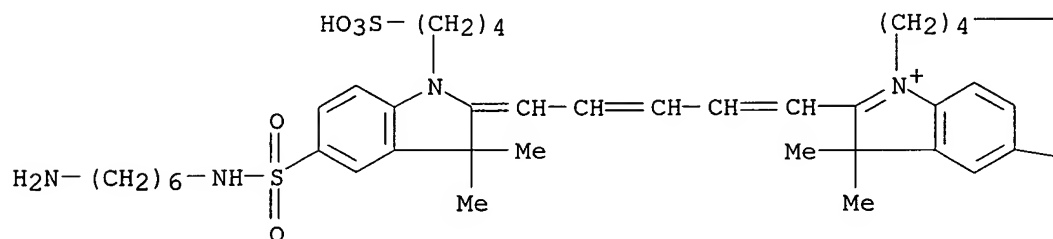
PAGE 1-B

— SO₃⁻

— SO₃H

RN 316829-88-6 CAPLUS
CN 3H-Indolium, 2-[5-[5-[(6-aminohexyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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— SO₃⁻

— SO₃H

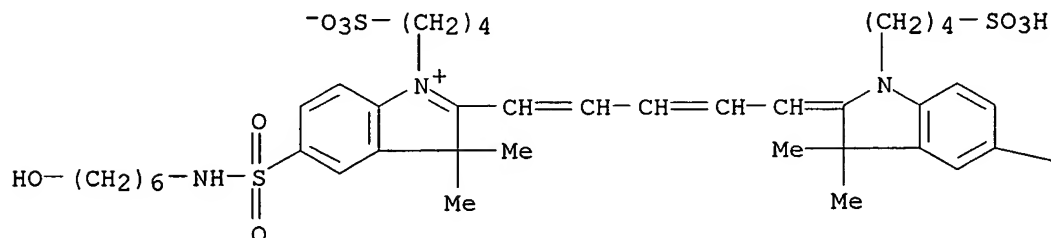
RN 316829-89-7 CAPLUS

Searcher : Shears 571-272-2528

10/058903

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-5-[[(6-hydroxyhexyl)amino]sulfonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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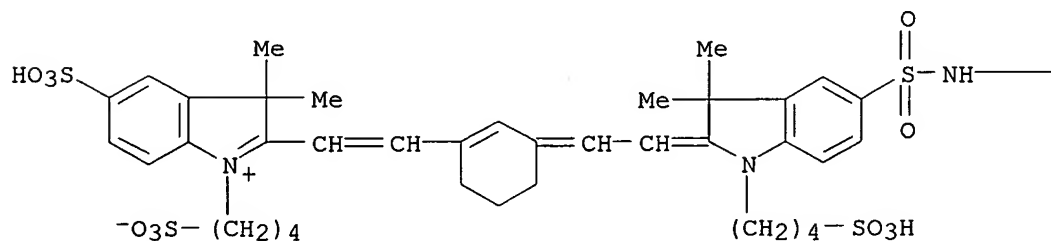
PAGE 1-B

—SO₃H

RN 316829-90-0 CAPLUS

CN 3H-Indolium, 2-[2-[3-[5-[[(carboxymethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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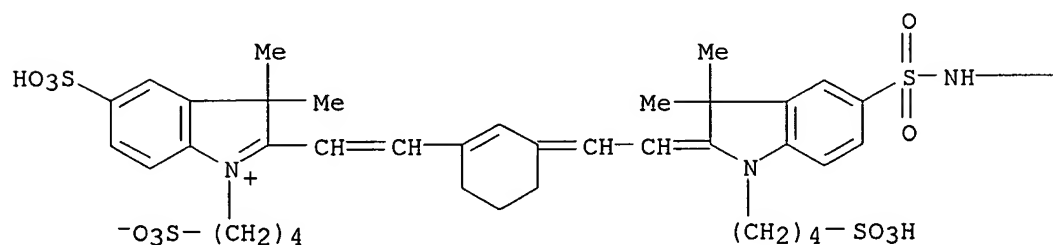
—CH₂—CO₂H

RN 316829-91-1 CAPLUS

Searcher : Shears 571-272-2528

CN 3H-Indolium, 2-[2-[3-[[5-[[2-carboxyethyl]amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-4-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-4-butyl)-, inner salt (9CI) (CA INDEX NAME)

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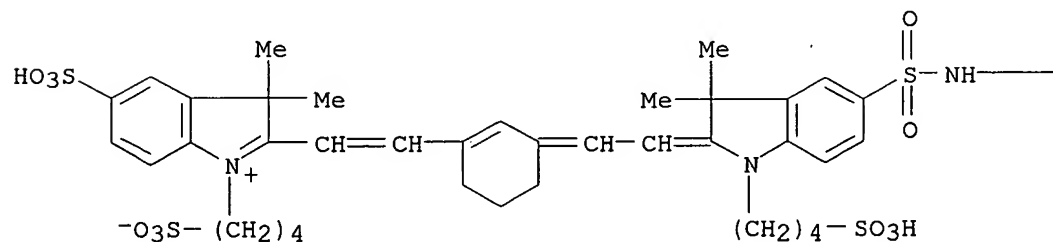
PAGE 1-B

—CH₂—CH₂—CO₂H

RN 316829-92-2 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-[[3-carboxypropyl]amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-4-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-4-butyl)-, inner salt (9CI) (CA INDEX NAME)

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—(CH₂)₃—CO₂H

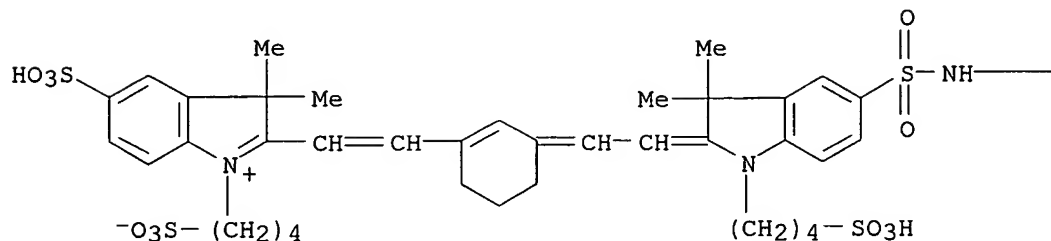
RN 316829-93-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-[[5-carboxypentyl]amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-4-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-4-butyl)-, inner salt (9CI) (CA INDEX NAME)

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1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-1-butyl)-, inner salt (9CI)
(CA INDEX NAME)

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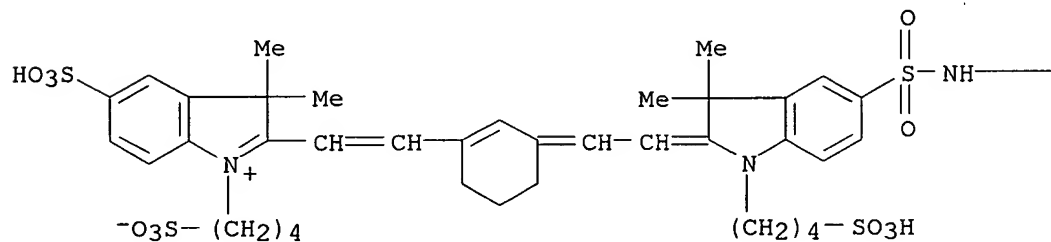


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— (CH₂)₅—CO₂H

RN 316829-94-4 CAPLUS
CN 3H-Indolium, 2-[2-[3-[5-[[4-(aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-1-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-1-butyl)-, inner salt (9CI) (CA INDEX NAME)

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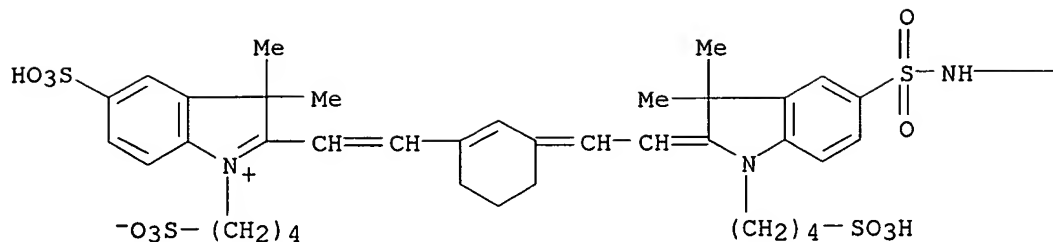


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— (CH₂)₄—NH₂

RN 316829-95-5 CAPLUS
CN 3H-Indolium, 2-[2-[3-[5-[[6-(aminohexyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfo-1-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfo-1-butyl)-, inner salt (9CI) (CA INDEX NAME)

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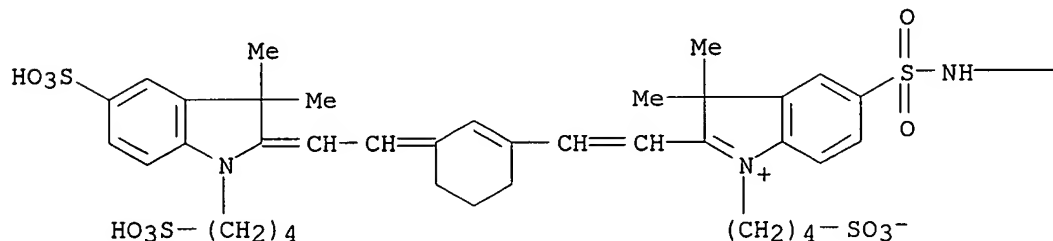


PAGE 1-B

— (CH₂)₆—NH₂

RN 316829-96-6 CAPLUS
 CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfo-butyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-5-[[[6-hydroxyhexyl)amino]sulfonyl]-3,3-dimethyl-1-(4-sulfo-butyl)-, inner salt (9CI) (CA INDEX NAME)

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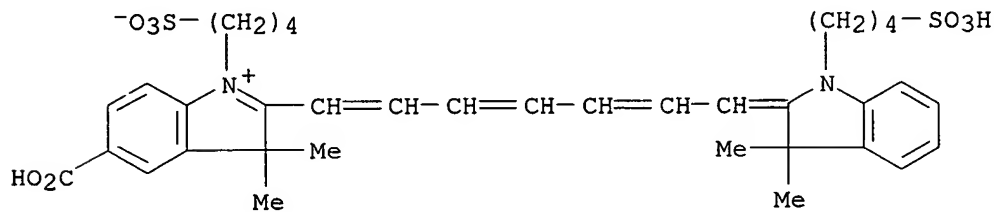
— (CH₂)₆—OH

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2000:516171 CAPLUS
 DOCUMENT NUMBER: 134:127990
 TITLE: Novel receptor-targeted contrast agents for optical

Searcher : Shears 571-272-2528

imaging of tumors
 AUTHOR(S) : Becker, Andreas; Hessenius, Carsten; Bhargava, Sarah;
 Ebert, Bernd; Sukowski, Uwe; Rinneberg, Herbert H.;
 Wiedenmann, Bertram; Semmler, Wolfhard; Licha, Kai
 CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freie Univ. Berlin,
 Berlin, Germany
 SOURCE: Proceedings of SPIE-The International Society for
 Optical Engineering (2000), 3924(Molecular Imaging:
 Reporters, Dyes, Markers, and Instrumentation), 41-47
 CODEN: PSISDG; ISSN: 0277-786X
 PUBLISHER: SPIE-The International Society for Optical Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Many gastroenteropancreatic tumors express receptors for somatostatin
 (SST) and/or vasoactive intestinal peptide (VIP). These receptors can be
 used as mol. targets for the delivery of contrast agents for tumor
 diagnostics. We have synthesized conjugates consisting of a cyanine dye
 and an SST analog or VIP for use as contrast agents in optical imaging.
 Receptor binding and internalization of these compds. were examined with
 optical methods in transfected RIN38 tumor cells expressing the SST2
 receptor or a GFP- labeled VIP (VPAC1) receptor. Furthermore,
 biodistribution of the conjugates was examined by laser-induced fluorescence
 imaging in nude mice bearing SST2 or VPAC1 receptor- expressing tumors.
 After incubation of RIN38 SSTR2 cells in the presence of 100 nM
 indotricarbocyanine-SST analog, cell-associated fluorescence increased,
 whereas no increase was observed when receptor-mediated endocytosis was
 inhibited. Indodicarbocyanine-VIP accumulated in RIN38 VPAC1 cells and
 co-localization with the GFP-labeled VPAC1 receptor was observed After
 injection of indotricarbocyanine-SST analog into tumor-bearing nude mice,
 SST2 receptor-pos. tumors could be visualized for a time period from 10
 min to at least 48 h. After application of indodicarbocyanine-VIP, a
 fluorescence signal in VIP1 receptor-expressing tumors was only detected
 during the first hour. We conclude that cyanine dye-labeled VIP and SST
 analog are novel, targeted contrast agents for the optical imaging of
 tumors expressing the relevant receptor.
 IT 208243-29-2D, conjugated with somatostatin peptide
 321909-06-2D, conjugated with VIP peptide
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU
 (Biological study, unclassified); PRP (Properties); ANST (Analytical
 study); BIOL (Biological study); PROC (Process); USES (Uses)
 (novel receptor-targeted contrast agents for optical imaging of tumors)
 RN 208243-29-2 CAPLUS
 CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-
 indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner
 salt (9CI) (CA INDEX NAME)



RN 321909-06-2 CAPLUS

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:218041 CAPLUS

DOCUMENT NUMBER: 133:30929

TITLE: Highly parallel nano-synthesis of cleavable
peptide-dye conjugates on cellulose membranes

AUTHOR(S): Licha, Kai; Bhargava, Sarah; Rheinlander, Christiane;
Becker, Andreas; Schneider-Mergener, Jens;
Volkmer-Engert, Rudolf

CORPORATE SOURCE: Institut fur Diagnostikforschung an der Freien
Universitat Berlin, Berlin, D-14050, Germany

SOURCE: Tetrahedron Letters (2000), 41(11), 1711-1715

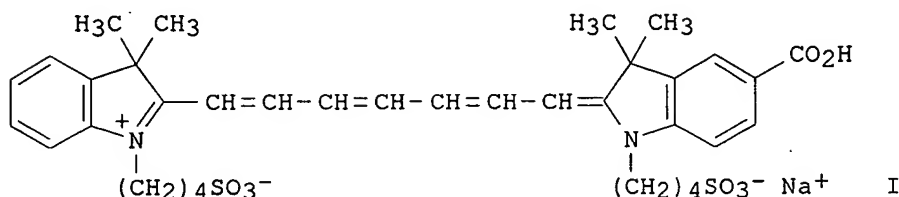
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Treatment of mercapto-functionalized cellulose membranes with preformed
Fmoc-amino acid bromopropyl esters yielded membrane-bound amino acids
connected via a stable thioether and a cleavable ester bond. This
synthesis strategy allowed the highly parallel preparation of peptides that
can

be solubilized from the solid support. The authors synthesized the novel
indotricarbocyanine dye I, and then, synthesized peptide conjugates of I,
which are potentially useful as fluorescent contrast agents targeted to
tumor-specific receptors.

IT 273383-46-3P 273383-48-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of cleavable peptide-dye **conjugates** on cellulose
membranes)

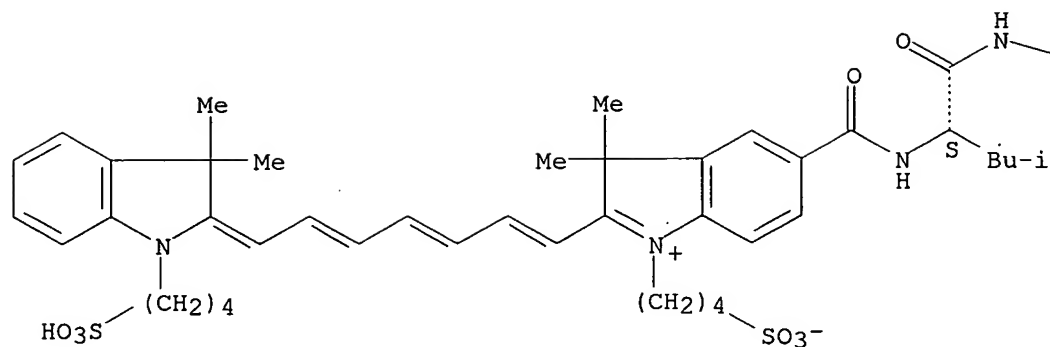
RN 273383-46-3 CAPLUS

CN L-Alanine, N-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-
ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-
yl]carbonyl]-L-leucyl-L-alanyl-L-isoleucyl-L-leucyl-, inner salt (9CI)
(CA INDEX NAME)

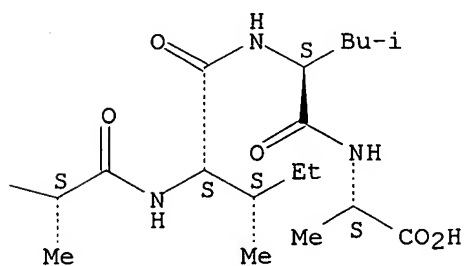
Absolute stereochemistry.

Double bond geometry unknown.

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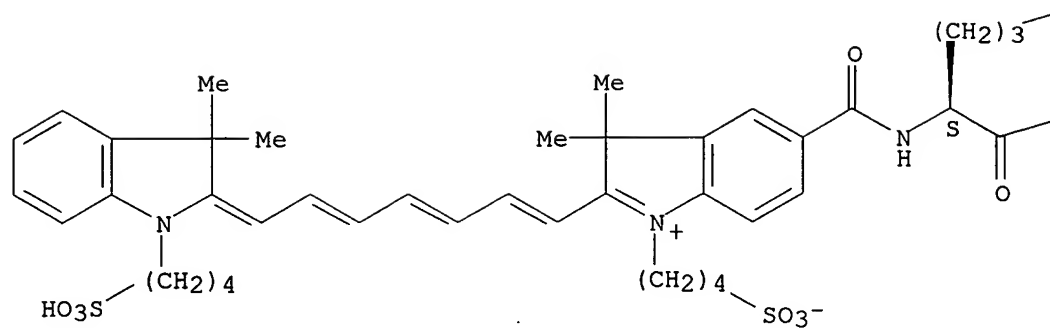
RN 273383-48-5 CAPLUS

CN L-Asparagine, N2-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-L-arginyl-L-lysyl-L-glutaminy-L-methionyl-L-alanyl-L-valyl-L-lysyl-L-lysyl-L-tyrosyl-L-leucyl-, inner salt (9CI) (CA INDEX NAME)

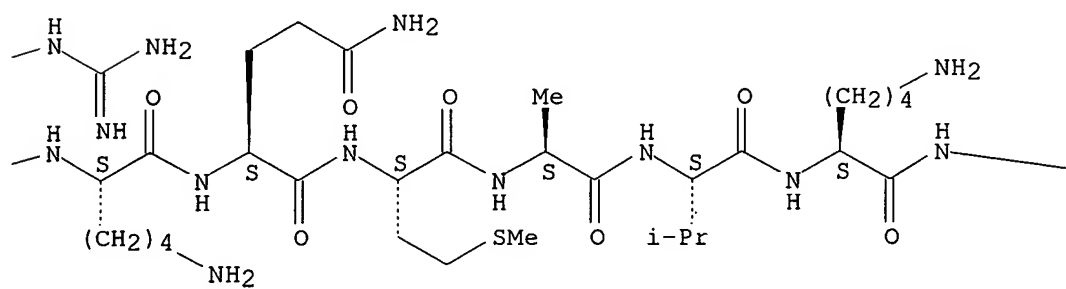
Absolute stereochemistry.

Double bond geometry unknown.

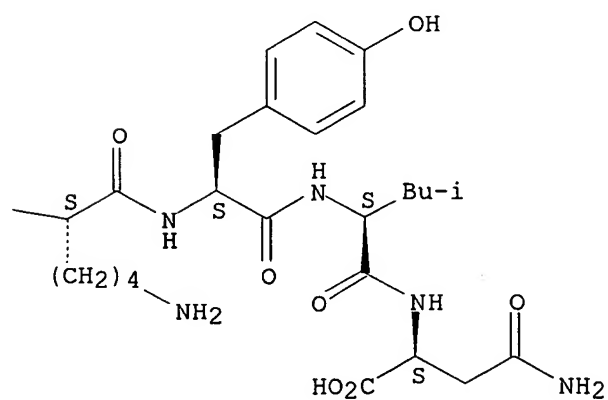
PAGE 1-A



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REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:527837 CAPLUS

DOCUMENT NUMBER: 132:134143

TITLE: New contrast agents for optical imaging:
acid-cleavable conjugates of cyanine dyes with
biomolecules

AUTHOR(S): Licha, Kai; Becker, Andreas; Kratz, Frank; Semmler,
Wolfhard

CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freien Univ.
Berlin, Berlin, Germany

SOURCE: Proceedings of SPIE-The International Society for
Optical Engineering (1999), 3600(Biomedical Imaging:
Reporters, Dyes, and Instrumentation), 29-35
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The investigation of cyanine dyes as contrast agents in optical tumor imaging has been a focus of our recent work. We have shown that i.v. injected hydrophilic indotricarbocyanine derivs. enable tumor detection by fluorescence imaging and by frequency-domain absorption spectroscopy. Our current objective is to extend this approach by conjugating these dyes with specific biomols. in order to enhance targetability and to introduce acid-cleavable links that enable dye release in acidic cell compartments. Accordingly, we have synthesized cyanine dyes which contain different acid-cleavable hydrazone links and which were coupled to peptides, proteins and antibodies. We have studied the release of the dyes under various pH conditions. Our results show that dye release from transferrin increased under acidic conditions, while at neutral pH the stability was higher. Addnl., we observed pH-dependent fluorescence enhancement during cleavage. Cellular fluorescence microscopy expts. indicated that intracellular trapping is possible. In conclusion, cyanine dyes bound to biomols. by acid- cleavable bonds could act as promising optical contrast agents. Further work will include optimization of release rates by chemical modification and in vivo imaging studies.

IT 208243-29-2P 256494-95-8P

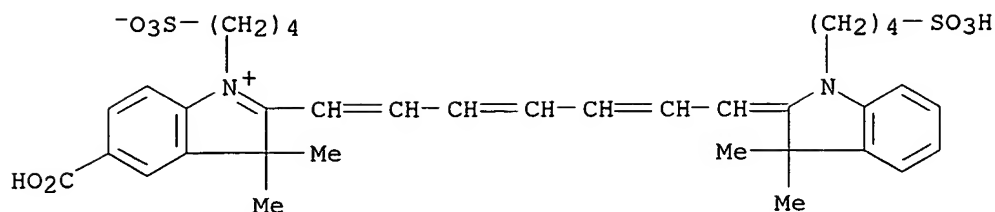
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(new contrast agents for optical imaging: acid-cleavable
conjugates of cyanine dyes with biomols.)

RN 208243-29-2 CAPLUS

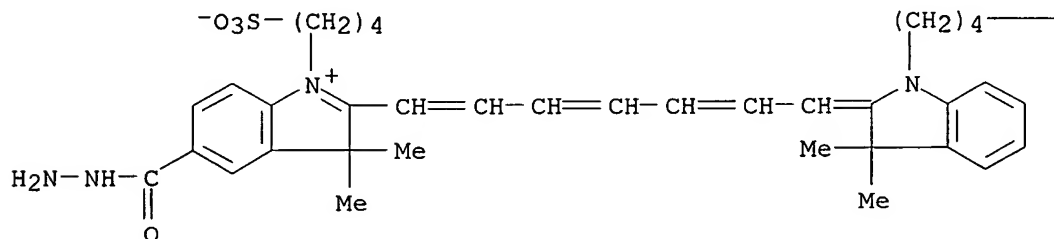
CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

10/058903



RN 256494-95-8 CAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-(hydrazinocarbonyl)-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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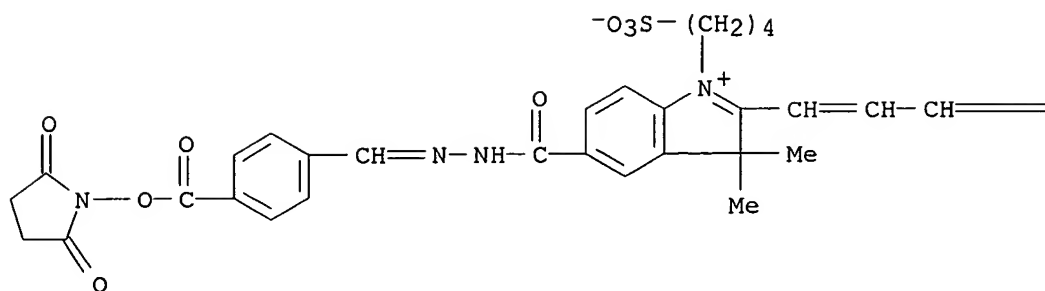


PAGE 1-B

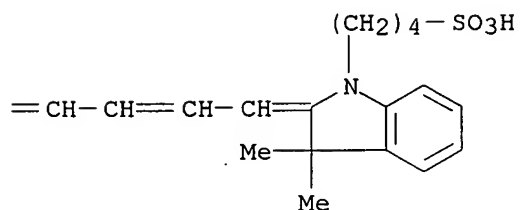
— SO₃H

IT 256494-96-9DP, transferrin **conjugates**
 256494-97-0DP, transferrin **conjugates**
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (new contrast agents for optical imaging: acid-cleavable **conjugates** of cyanine dyes with biomols.)
 RN 256494-96-9 CAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-[[[4-[[[2,5-dioxo-1-pyrrolidinyl]oxy]carbonyl]phenyl]methylene]hydrazino]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A

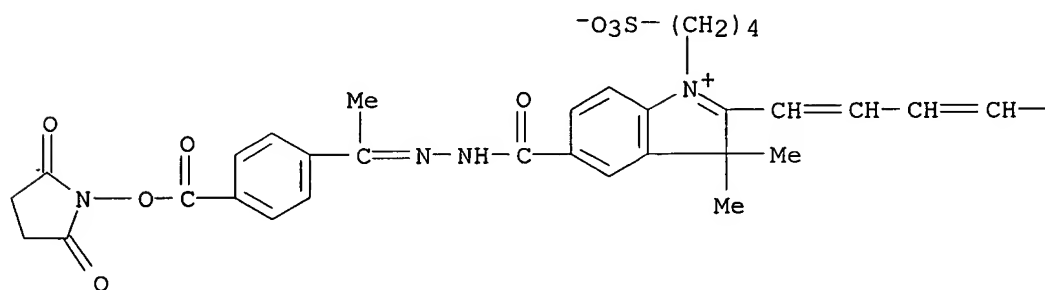


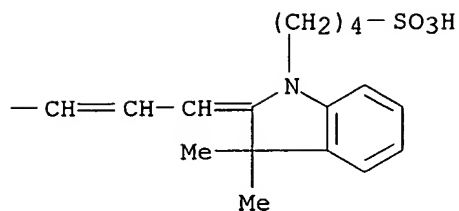
PAGE 1-B



RN 256494-97-0 CAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-[[[1-[4-[[2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]ethylidene]hydrazino]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A





REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:341978 CAPLUS

DOCUMENT NUMBER: 129:104816

TITLE: Near-infrared heavy-atom-modified fluorescent dyes for base-calling in DNA-sequencing applications using temporal discrimination

AUTHOR(S): Flanagan, James H., Jr.; Owens, Clyde V.; Romero, Sarah E.; Waddell, Emanuel; Kahn, Shaheer H.; Hammer, Robert P.; Soper, Steven A.

CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803-1804, USA

SOURCE: Analytical Chemistry (1998), 70(13), 2676-2684
CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of near-IR fluorescent dyes were prepared which contained an intramol. heavy atom for altering the fluorescence lifetimes to produce a set of probes appropriate for base-calling in a single-lane DNA sequencing format. The heavy-atom modification consisted of an intramol. halogen situated on a remote section of the chromophore in order to minimize the perturbation on the lifetimes and fluorescence quantum yields. In addition, the dye series possessed an isothiocyanate functional group to allow facile attachment to sequencing primers. The unconjugated dyes showed similar absorption and emission maxima ($\lambda_{\text{abs}} = 765\text{-}768\text{ nm}$; $\lambda_{\text{em}} = 794\text{-}798\text{ nm}$) as well as fluorescence quantum yields that were invariant, within exptl. error, with the heavy atom. However, the lifetimes of these dyes were found to vary with the identity of the halogen substitution (I, $\tau_f = 947\text{ ps}$; F, $\tau_f = 843\text{ ps}$, measured in methanol), with an average variation within the dye series of 35 ps. The spectroscopic properties of the free dyes and the dyes conjugated to sequencing primers on the 5'-end of the oligonucleotide were determined in a DNA-sequencing matrix (denaturing gels containing formamide). The results indicated slight differences in the fluorescence properties of the free dyes compared to those of the dye/primer conjugates in this particular matrix. Inspection of the ground-state absorption spectra showed significant aggregation for the free dyes in this solution, but the conjugated dyes exhibited no sign of aggregation due to the highly anionic nature of the oligonucleotide. The fluorescence lifetimes of the dye/primer conjugates demonstrated lifetimes which ranged from 735 to 889 ps, with an average variation of 51 ps, an adequate difference to allow facile

discrimination of these dyes in DNA-sequencing conditions. In addition, the free solution electrophoretic mobilities of the native heavy-atom-modified dyes were found to be very similar. When the dye/primer conjugates were electrophoresed in a cross-linked polyacrylamide gel electrophoresis capillary column, they comigrated, indicating that, in single-lane sequencing applications, when utilizing these dyes, no postrun corrections would be required to correct for dye-dependent mobility shifts.

IT 209911-58-0DP, oligodeoxyribonucleotide **conjugates**

209911-61-5DP, oligodeoxyribonucleotide **conjugates**

209911-65-9DP, oligodeoxyribonucleotide **conjugates**

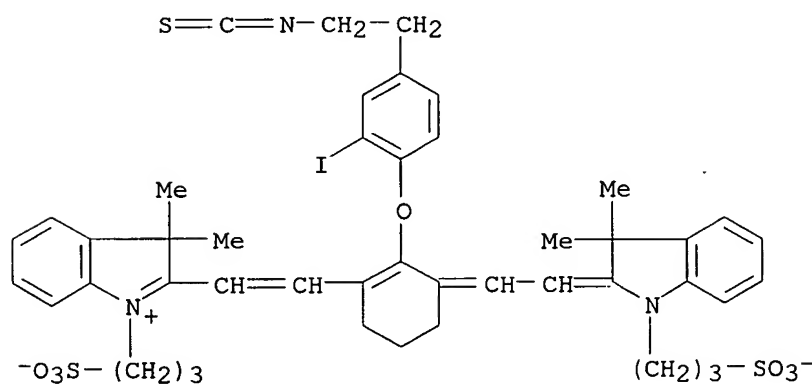
209911-69-3DP, oligodeoxyribonucleotide **conjugates**

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(near-IR heavy-atom-modified fluorescent dyes for base-calling in DNA-sequencing applications using temporal discrimination)

RN 209911-58-0 CAPLUS

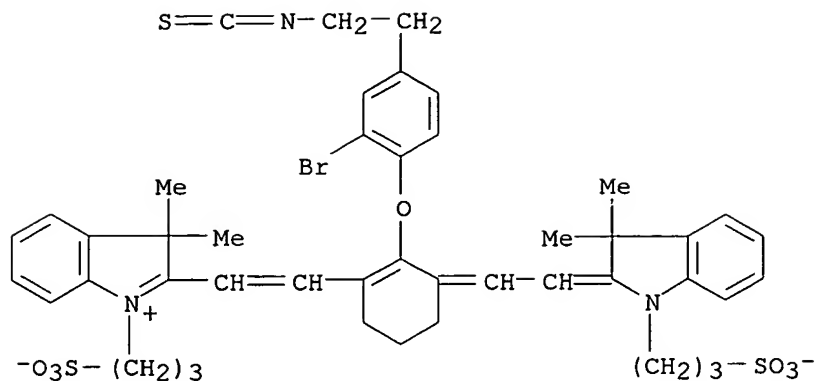
CN 3H-Indolium, 2-[2-[3-[[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[2-iodo-4-(2-isothiocyanatoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)



RN 209911-61-5 CAPLUS

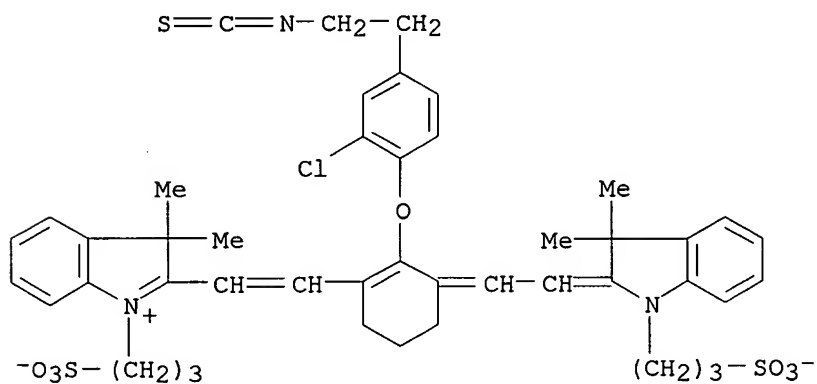
CN 3H-Indolium, 2-[2-[2-[2-bromo-4-(2-isothiocyanatoethyl)phenoxy]-3-[[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)

10/058903



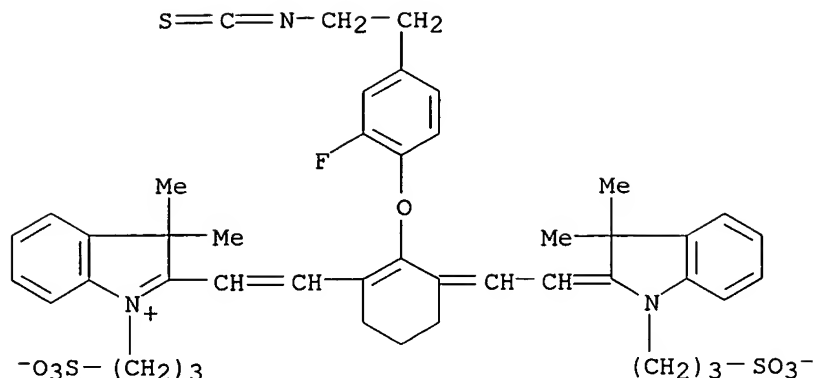
RN 209911-65-9 CAPLUS

CN 3H-Indolium, 2-[2-[2-[2-chloro-4-(2-isothiocyanatoethyl)phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)



RN 209911-69-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[2-fluoro-4-(2-isothiocyanatoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:93134 CAPLUS

DOCUMENT NUMBER: 128:227990

TITLE: Tumor detection with cyanine dye-poly(ethylene glycol) conjugates as contrast agents for near-infrared imaging

AUTHOR(S): Riefke, Bjorn; Licha, Kai; Nolte, Dirk; Ebert, Bernd; Rinneberg, Herbert; Semmler, Wolfhard

CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, 14050, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3196(Optical and Imaging Techniques for Biomonitoring III), 103-110
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

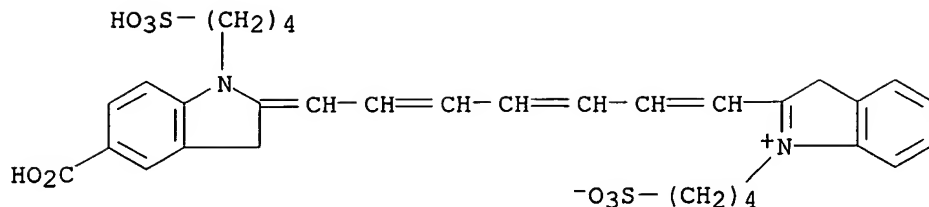
AB The influence of the mol. weight of cyanine dye-poly(ethylene glycol) (PEG) conjugates on their pharmacokinetic behavior and on the contrast between malignant and normal tissue in fluorescence images was studied. PEG conjugates with a mol. weight ranging from 1800 to 40000 g mol⁻¹ were investigated in a rat model. A tunable, pulsed, solid-state laser system and an intensified CCD camera served to record fluorescence images of different tumor-bearing mice and rats. The time window of increased contrast between tumor and normal tissue in fluorescence images can be adjusted by the mol. weight of PEG residues. Furthermore, we were able to demonstrate the visualization of s.c. blood vessels.

IT 204184-06-5D, PEG conjugates

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(tumor detection with cyanine dye-poly(ethylene glycol) conjugates as contrast agents for near-IR imaging)

RN 204184-06-5 CAPLUS

CN 3H-Indolium, 2-[7-[5-carboxy-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:34059 CAPLUS

DOCUMENT NUMBER: 126:57117

TITLE: Methods for the production of platinum-based linkers between labels and bio-organic molecules, for labeling bio-organic molecules, for detecting biological substances of interest and diagnostic test kits

INVENTOR(S): Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna

PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635696	A1	19961114	WO 1996-NL198	19960508
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2218815	AA	19961114	CA 1996-2218815	19960508
AU 9657040	A1	19961129	AU 1996-57040	19960508
AU 724320	B2	20000914		
JP 11505533	T2	19990521	JP 1996-533965	19960508
NZ 307633	A	20000128	NZ 1996-307633	19960508
EP 1019420	A1	20000719	EP 1996-915218	19960508
EP 1019420	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 246696	E	20030815	AT 1996-915218	19960508
PT 1019420	T	20031231	PT 1996-915218	19960508
ES 2205030	T3	20040501	ES 1996-915218	19960508
PRIORITY APPLN. INFO.:			EP 1995-201197	A 19950509
			WO 1996-NL198	W 19960508

OTHER SOURCE(S): CASREACT 126:57117; MARPAT 126:57117

AB The present invention provides improved methods of producing platinum

comps., which are very suitable for producing labeled substances, which can be used to detect specific mols. of interest. The platinum coordination comps. have two reactive groups of which one is replaced by a label and the other one can be replaced by a substance to be labeled. Production of labeled substances is very much improved by selection of the right starting materials and producing the right intermediates. The efficiency of labeling is very much improved, thereby enabling the production

of labeling kits which are also a part of the present invention. The methods can be used for the detection of, e.g., various microorganisms and gene translocations/abnormalities.

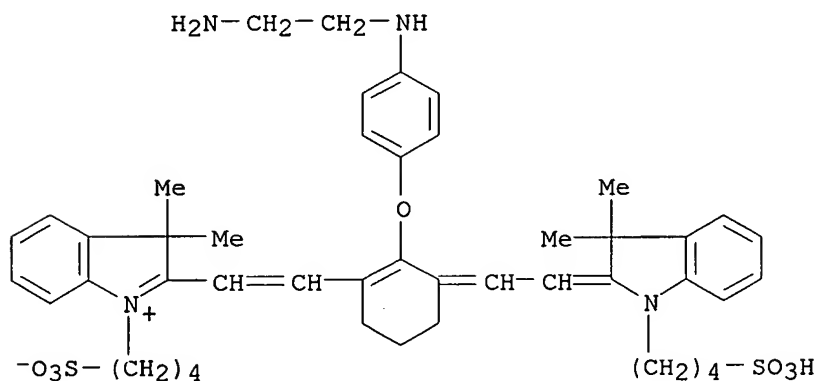
IT **184957-40-2DP**, complexes with platinum ethylenediamine

RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(platinum-based **linkers** preparation for labeling bioorg. mols. for detection and diagnosis)

RN 184957-40-2 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



IT **184957-40-2**

RL: RCT (Reactant); RACT (Reactant or reagent)

(platinum-based **linkers** preparation for labeling bioorg. mols. for detection and diagnosis)

RN 184957-40-2 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

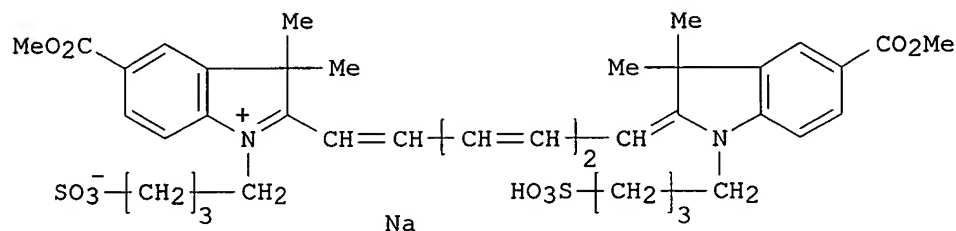
L69 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:437966 CAPLUS
DOCUMENT NUMBER: 125:81266
TITLE: Dye-biomolecule conjugates as contrast agents for
in-vivo near-IR diagnostic methods
INVENTOR(S): Licha, Kai; Riefke, Bjoern; Semmler, Wolfhard; Speck,
Ulrich; Hilger, Christoph-Stephan
PATENT ASSIGNEE(S): Institut fuer Diagnostikforschung Gmbh an der Freien
Universitaet Berlin, Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4445065	A1	19960613	DE 1994-4445065	19941207
CA 2205906	AA	19960613	CA 1995-2205906	19951010
WO 9617628	A1	19960613	WO 1995-DE1465	19951010
W: AU, CA, CN, HU, JP, KR, NO, NZ, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9537409	A1	19960626	AU 1995-37409	19951010
AU 709152	B2	19990819		
EP 796111	A1	19970924	EP 1995-935348	19951010
EP 796111	B1	20030423		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1174511	A	19980225	CN 1995-196624	19951010
CN 1089008	B	20020814		
HU 77378	A2	19980428	HU 1997-1797	19951010
JP 10510250	T2	19981006	JP 1995-517228	19951010
JP 2002012782	A2	20020115	JP 2001-143906	19951010
EP 1181940	A2	20020227	EP 2001-250366	19951010
EP 1181940	A3	20020313		
EP 1181940	B1	20041222		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 238071	E	20030515	AT 1995-935348	19951010
PT 796111	T	20030930	PT 1995-935348	19951010

10/058903

ES 2198446	T3	20040201	ES 1995-935348	19951010
ZA 9509707	A	19960529	ZA 1995-9707	19951115
NO 9702509	A	19970602	NO 1997-2509	19970602
US 6083485	A	20000704	US 1997-849369	19971107
US 2001055567	A1	20011227	US 2001-850660	20010507
US 2003026763	A1	20030206	US 2002-180272	20020626
US 2003170179	A1	20030911	US 2003-368997	20030219
PRIORITY APPLN. INFO.:			DE 1994-4445065	A 19941207
			EP 1995-935348	A3 19951010
			JP 1995-517228	A2 19951010
			WO 1995-DE1465	W 19951010
			US 1997-849369	A1 19971107
			US 2000-518947	A3 20000306
			US 2001-850660	A1 20010507
			US 2002-180272	A1 20020626

OTHER SOURCE(S): MARPAT 125:81266
GI



I

AB Conjugates B.scriptl.(FWn)m [B = biol. recognition mol. (mol. weight $\leq 30,000$); F = dye; W = hydrophilic group to improve water solubility; .scriptl. = 0-6; n = 0-10; m = 1-100] are useful as contrast agents in fluorescent and transillumination diagnostic procedures in vivo. Recognition mol. B may bind specifically to selected cell populations or receptors, may be a nonspecifically binding macromol., or may become enriched in tissues, tumors, or blood. Thus, cyanine dye I was administered i.v. to mice bearing tumor LS174T. I became enriched in the tumor after 18 h, as shown by IR fluorescence during irradiation at 740 nm.

IT **178822-68-9P**

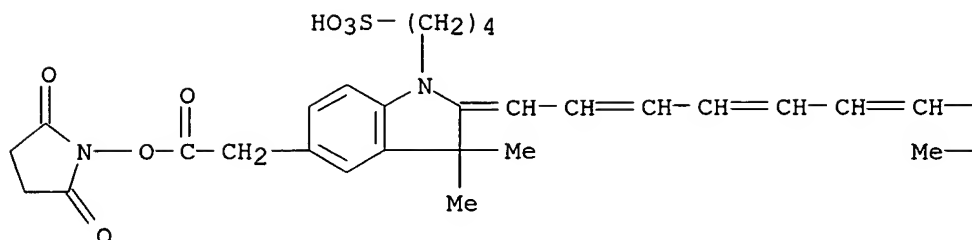
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(dye-biomol. **conjugates** as contrast agents for in-vivo near-IR diagnostic methods)

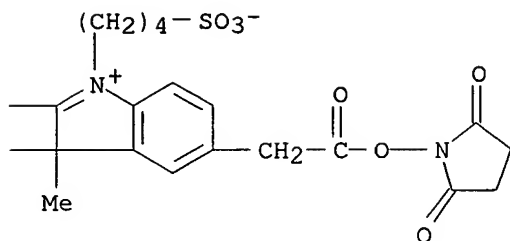
RN 178822-68-9 CAPLUS

CN 3H-Indolium, 5-[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-2-[7-[5-[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L69 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:696239 CAPLUS

DOCUMENT NUMBER: 121:296239

TITLE: A near IR biosensor for evanescent wave immunoassays

AUTHOR(S): Golden, Joel P.; Shriver-Lake, Lisa C.; Narayanan, N.; Patonay, Gabor; Ligler, Frances S.

CORPORATE SOURCE: Molecular Science and Engineering Naval Research Lab, Center Bio, Washington, DC, 20375, USA

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1994), 2138 (LONGER WAVELENGTH LASERS AND APPLICATIONS), 241-5
CODEN: PSISDG; ISSN: 0277-786X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Based upon a biosensor design which utilizes standard fluorescent dyes (FITC,

TRITC), a new device has been developed which incorporates a laser diode light source to excite novel near IR (NIR) dyes. The purpose of switching to the NIR regime is to decrease the background fluorescence of biol. samples and to decrease the size and power requirements of the biosensor. New dyes which fluoresce in the NIR have been conjugated to protein antigen and immunoassays performed. Assay results using excitation at 780 nm are shown.

IT 159092-32-7D, antibody conjugates

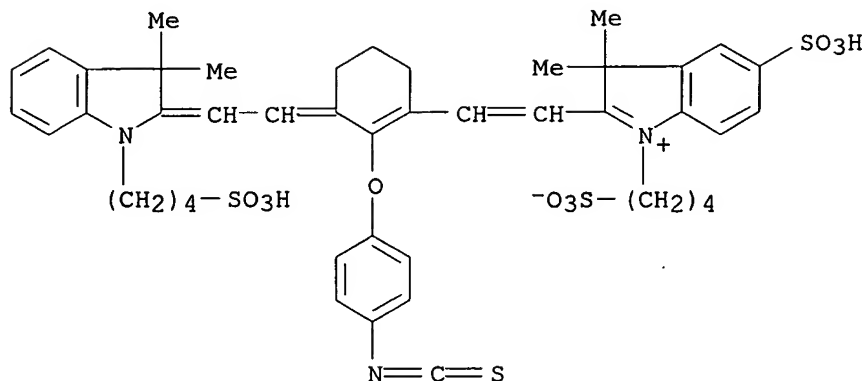
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(near IR fluorimeter for evanescent wave immunoassays)

RN 159092-32-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-isothiocyanatophenoxy)-1-cyclohexen-1-

10/058903

yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA
INDEX NAME)



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-9/BI OR 209911-69-3/BI OR 256494-95-8/BI OR 256494-96-9/BI OR
256494-97-0/BI OR 273383-46-3/BI OR 273383-48-5/BI OR 316829-76
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583037-93-8/BI OR 612531-93-8/BI OR 612531-94-9/BI OR 795315-56
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FILE 'CAOLD' ENTERED AT 12:19:49 ON 14 JAN 2005
L71 0 S L70

FILE 'USPATFULL' ENTERED AT 12:19:55 ON 14 JAN 2005
L72 8 S L70

L72 ANSWER 1 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2003:243770 USPATFULL
TITLE: Near infrared imaging agent
INVENTOR(S): Licha, Kai, Berlin, GERMANY, FEDERAL REPUBLIC OF
Riefke, Bjorn, Berlin, GERMANY, FEDERAL REPUBLIC OF
Semmler, Wolfhard, Glienicke, GERMANY, FEDERAL REPUBLIC
OF
Speck, Ulrich, Berlin, GERMANY, FEDERAL REPUBLIC OF
Hilger, Christoph-Stephan, Berlin, GERMANY, FEDERAL
REPUBLIC OF
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GMBH an der freien
Universita (copy) (non-U.S. corporation)

NUMBER	KIND	DATE

Searcher : Shears 571-272-2528

10/058903

PATENT INFORMATION: US 2003170179 A1 20030911
APPLICATION INFO.: US 2003-368997 A1 20030219 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-180272, filed on 26 Jun 2002, PENDING Continuation of Ser. No. US 2001-850660, filed on 7 May 2001, PENDING Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	994	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 2 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2003:232034 USPATFULL
TITLE: Folate targeted enhanced tumor and folate receptor positive tissue optical imaging technology
INVENTOR(S): Jallad, Karim N., West Lafayette, IN, UNITED STATES
Kennedy, Michael D., West Lafayette, IN, UNITED STATES
Low, Philip S., West Lafayette, IN, UNITED STATES
Ben-Amotz, Dor, West Lafayette, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162234	A1	20030828
APPLICATION INFO.:	US 2003-360001	A1	20030206 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-355417P	20020207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Intellectual Property Group, Bose McKinney & Evans LLP, 2700 First Indiana Plaza, 135 North Pennsylvania Street, Indianapolis, IN, 46204	
NUMBER OF CLAIMS:	54	

Searcher : Shears 571-272-2528

EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 13 Drawing Page(s)
 LINE COUNT: 603

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of differentiating tumors from healthy cells in tissue is disclosed. The method includes the steps of providing a marker-folate conjugate, placing the marker-folate conjugate in contact with the tissue and viewing the tissue.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 3 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2003:37119 USPATFULL

TITLE: In-vivo diagnostic method by means of near infrared radiation

INVENTOR(S): Licha, Kai, Berlin, GERMANY, FEDERAL REPUBLIC OF
 Riefke, Bjorn, Berlin, GERMANY, FEDERAL REPUBLIC OF
 Semmler, Wolfhard, Glienicke, GERMANY, FEDERAL REPUBLIC OF
 OF
 Speck, Ulrich, Berlin, GERMANY, FEDERAL REPUBLIC OF
 Hilger, Christopher -Stephen, Berlin, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): Institut Fur Diagnostikforschung GmbH an der Freien
 Universitat Berlin (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003026763	A1	20030206
APPLICATION INFO.:	US 2002-180272	A1	20020626 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-850660, filed on 7 May 2001, PENDING Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	997	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 4 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2002:230789 USPATFULL
 TITLE: Fluorescent cyanine labels containing a sulfamido linker arm
 INVENTOR(S): Caputo, Giuseppe, Turin, ITALY.
 Della Ciana, Leopoldo, Lugo, ITALY
 PATENT ASSIGNEE(S): Innosense, S.r.l., ITALY (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6448008	B1	20020910
APPLICATION INFO.:	US 2000-609035		20000630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1999-112696	19990702
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jones, W. Gary	
ASSISTANT EXAMINER:	Souaya, Jehanne	
LEGAL REPRESENTATIVE:	Myers Bigel Sibley & Sajovec, PA	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	57 Drawing Figure(s); 57 Drawing Page(s)	
LINE COUNT:	2027	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorescent cyanine dye of the following general formula is disclosed:
 ##STR1##

wherein:

X.sub.1 and X.sub.2 are independently selected from the group consisting of --O--, --S--, --C(CH.sub.3).sub.2 or --C.dbd.CH.sub.2;

Y.sub.1 and Y.sub.2 are nonmetal atoms required to form a benzo-condensed or naphtho-condensed ring; Q is a conjugated moiety that increases the fluorescent quantum yield and the stability of the compound;

R.sub.1 and R.sub.2 are independently selected from the group consisting of H, C.sub.1-C.sub.4, alkyl, alkylsulfonic group or alkylsulfonate group wherein the alkylene group has from 1 to 4 carbon atoms; R3, R4 and R5 are independently selected from the group consisting of H, a sulfonic group, a sulfonate group, alkylsulfonic, alkylsulfonate and --SO.sub.2NH(CH.sub.2).sub.m--W--(CH.sub.2).sub.nZ, wherein alkylene has 1 to 4 carbon atoms, with the proviso that at least one of R.sub.1 to R.sub.5 contains a sulfonic or sulfonate group; W is absent or is a group selected from --SO.sub.2NH, --O--, --COO--, or --CONH--; n=0-12 and m=0-12 with the provisos that m+n≤12 and at least one of m and n≠0; and Z is, or contains a N, O or S nucleophile functionality or is, or contains a functionality capable of reacting with N, O or S nucleophiles. Nucleophile functionalities include --NH.sub.2, --OH, and --SH groups; groups capable of reacting with such

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functionalities include --COCl, --COOCOR, --CONHNH.sub.2,
N-hydroxysuccinimido esters, --NCS, --CHO, --COCH.sub.2I,
phosphoramidite and maleimido.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 5 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2001:237455 USPATFULL

TITLE: In-vivo diagnostic method by means of near infrared radiation

INVENTOR(S): Licha, Kai, Berlin, Germany, Federal Republic of
Riefke, Bjorn, Berlin, Germany, Federal Republic of
Semmler, Wolfhard, Glienicke, Germany, Federal Republic of
Speck, Ulrich, Berlin, Germany, Federal Republic of
Hilger, Christoph-Stephan, Berlin, Germany, Federal Republic of

PATENT ASSIGNEE(S): Institut Fur Diagnostikforschung GmbH An Der Freien
Universitat Berlin (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001055567	A1	20011227
APPLICATION INFO.:	US 2001-850660	A1	20010507 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, P.C., 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219-1818	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	994	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 6 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2001:226779 USPATFULL

TITLE: Optical diagnostic agents for diagnosis of neurodegenerative diseases by means of near infrared

Searcher : Shears 571-272-2528

radiation (NIR radiation)
 INVENTOR(S): Turner, Jonathan, Berlin, Germany, Federal Republic of
 Dyrks, Thomas, Hohenneuendorf, Germany, Federal
 Republic of
 Semmler, Wolfhard, Berlin, Germany, Federal Republic of
 Licha, Kai, Berlin, Germany, Federal Republic of
 Riefke, Bjorn, Berlin, Germany, Federal Republic of
 PATENT ASSIGNEE(S): Schering AG, Berlin, Germany, Federal Republic of
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6329531	B1	20011211
	WO 9822146		19980528
APPLICATION INFO.:	US 1999-308177		19991118 (9)
	WO 1997-DE2559		19971029
			19991118 PCT 371 date
			19991118 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19649971	19961119
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Higel, Floyd D.	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	839	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to compounds of formula (I): F.sub.m
 (--A1) (--B.sub.n) (--W.sub.o) wherein F is a colorant-signal molecule
 with a maximum absorption value ranging from 600-1200 nm; A is a
 β -amyloid plaque binding biomolecule; B is a β -amyloid plaque
 binding colorant; and W is a β -amyloid plaque binding hydrophilic
 low-molecular structural element. The invention also describes the use
 of these compounds in in vivo and in vitro diagnosis of
 neurodegenerative diseases such as Alzheimer's disease by means of near
 infra-red radiation (NIR radiation) as a contrasting agent in
 fluorescence and transillumination diagnosis in the NIR range.
 Diagnostic agents containing said components are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 7 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2001:107426 USPATFULL

TITLE: In-vivo diagnostic method by near infrared radiation

INVENTOR(S): Licha, Kai, Berlin, Germany, Federal Republic of
 Riefke, Bjorn, Berlin, Germany, Federal Republic of
 Semmler, Wolfhard, Glienicke, Germany, Federal Republic
 of
 Speck, Ulrich, Berlin, Germany, Federal Republic of
 Hilger, Christoph-Stephan, Berlin, Germany, Federal
 Republic of

PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GmbH, Berline,

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Germany, Federal Republic of (non-U.S. corporation)
der Freien Universitat Berlin, Berlin, Germany,
Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6258340	B1	20010710
APPLICATION INFO.:	US 2000-518947		20000306 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 849369		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jones, Dameron L.	
LEGAL REPRESENTATIVE:	Webb Ziesenheim Logsdon Orkin & Hanson, P.C.	
NUMBER OF CLAIMS:	3	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	971	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 8 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2000:83826 USPATFULL

TITLE: Near infrared radiation in-vivo diagnostic methods and dyes

INVENTOR(S): Licha, Kai, Berlin, Germany, Federal Republic of
Riefke, Bjorn, Berlin, Germany, Federal Republic of
Semmler, Wolfhard, Glienicke, Germany, Federal Republic of
of
Speck, Ulrich, Berlin, Germany, Federal Republic of
Hilger, Christoph-Stephan, Berlin, Germany, Federal Republic of

PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GmbH, Berlin, Germany,
Federal Republic of (non-U.S. corporation)
der Freien Universitat Berlin, Berlin, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6083485		20000704
	WO 9617628		19960613
APPLICATION INFO.:	US 1997-849369		19971107 (8)
	WO 1995-DE1465		19951010
			19971107 PCT 371 date
			19971107 PCT 102(e) date

Searcher : Shears 571-272-2528

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	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Dees, Jose' G.	
ASSISTANT EXAMINER:	Jones, Dameron	
LEGAL REPRESENTATIVE:	Webb Ziesenheim Logsdon Orkin & Hanson, P.C.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	1065	

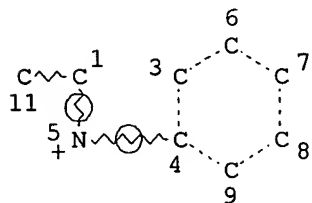
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:20:15 ON 14 JAN 2005)
L73 0.S L70

(FILE 'MARPAT' ENTERED AT 12:20:35 ON 14 JAN 2005)
L74 STR



NODE ATTRIBUTES:

CHARGE IS *+ AT 5
CONNECT IS X2 RC AT 6
CONNECT IS X2 RC AT 8
CONNECT IS X2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:

ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

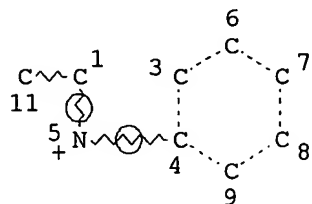
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10/058903

100.0% PROCESSED 38609 ITERATIONS
SEARCH TIME: 00.00.15

0 ANSWERS

FILE 'MARPATPREV' ENTERED AT 12:22:08 ON 14 JAN 2005
L74 STR



NODE ATTRIBUTES:

CHARGE IS *+ AT 5
CONNECT IS X2 RC AT 6
CONNECT IS X2 RC AT 8
CONNECT IS X2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:

ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

L77 0 SEA FILE=MARPATPREV SSS FUL L74 (MODIFIED ATTRIBUTES)

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0 ANSWERS

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